



NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
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March 8, 2012

Mr. David W. Peightal
Environmental Operations Manager
Dakota Gasification Company
P.O. Box 1149
Beulah, ND 58523-1149

Re: Air Pollution Control
Permit to Operate Renewal
Title V Source

Dear Mr. Peightal:

On November 4, 2011 the Department received a Permit to Operate renewal application for the Dakota Gasification Company Great Plains Synfuels Plant located near Beulah, North Dakota.

Based on our review of the permit application and other relevant documents, the Department hereby issues a Permit to Operate for the source. The Department's issuance of the permit is contingent upon compliance with the conditions outlined in the permit. Please review each condition carefully and note the restrictions placed on the source units.

For your information, during the 30-day public comment period and subsequent 45-day EPA review period no comments were received. If you have any questions, please contact me at (701)328-5188.

Sincerely,

Lewis H. Dendy
Environmental Scientist
Division of Air Quality

LHD:saj

Enc:

xc/enc: Mike Owens, EPA, Region 8 (email)



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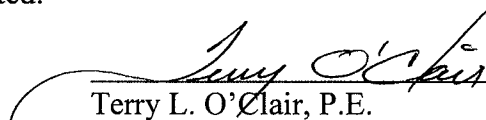
**AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE**

Permittee: Name: Dakota Gasification Company Address: 1600 E. Interstate Avenue P.O. Box 5540 Bismarck, ND 58506-5540	Permit Number: T5-F96007 Source Name: Great Plains Synfuels Plant
Source Location: Sections 24 & 25, T145N, R88W Mercer County, North Dakota	Source Type: Coal Gasification Plant

Expiration Date:
January 1, 2016

Pursuant to Chapter 23-25 of the North Dakota Century Code, and the Air Pollution Control Rules of the State of North Dakota, Article 33-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee designated above, a Title V Permit to Operate is hereby issued authorizing such permittee to operate the emissions unit(s) at the location designated above. This Title V Permit to Operate is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Health and to any conditions specified on the following pages. All conditions are enforceable by EPA and citizens under the Clean Air Act unless otherwise noted.

Renewal No. 2 (Sig. Mod.): 3/8/12
Revision No. 0: _____


Terry L. O'Clair, P.E.
Director
Division of Air Quality

Great Plains Synfuels Plant
Title V Permit to Operate
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Compliance Assurance Monitoring
(CAM) Plan

Attachment B - Dakota Gasification Company's FGD Malfunction,
Air Pollution Control Contingency Plan

Attachment C - Great Plains Synfuels Plant Continuous Emission
Monitoring System Concept

Attachment D - Dakota Gasification Company Predictive Emission
Monitoring System, Ammonia Plant Feed Gas Heater

Attachment E - Plant-wide Applicability Limit Conditions

Attachment F - Compliance Plan and Schedule (Tanks FB-6003A
And FB-6003B)

Permit Shield

Compliance with the terms and conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- Such applicable requirements are included and are specifically identified in this permit; or
- The Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the determination, or a concise summary thereof, is included in this permit.

Applicable Requirement: NDAC 33-15-14-06.5.f.(1)

1. Emission Unit(s) Identification:

The emission unit(s) regulated by this permit are as follows:

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Combined Riley boilers after FGD and superheater discharge	1	CA-5701 (Common Main Stack)	Ammonium Sulfate Flue Gas Desulfurization (FGD) System and Wet Electrostatic Precipitator
Three Riley boilers each with a maximum rated capacity of 763×10^6 Btu/hr and fired on waste gas, fuel gas, tar oil, naphtha, phenol, and substitute natural gas (SNG)	BF-5101 (A, B & S)	CA-5701 (Common Main Stack)	Ammonium Sulfate FGD and Wet Electrostatic Precipitator
Two Heat Transfer System superheaters each with a maximum rated capacity of 169×10^6 Btu/hr and fired on fuel gas, tar oil, naphtha, phenol, and SNG	BF-5002 (A & B)	CA-5701 (Common Main Stack)	None
Bypass stack	BF-5101 (A, B & S) & BF-5002 (A & B)	CA-5101 (Bypass Stack)	None
Start-up heater	BA-1701	BA-1701	None
Ammonia plant start-up heater rated at 36×10^6 Btu/hr and fired on SNG	BA-4402*	BA-4402	None
Ammonia plant feed gas heater rated at 295.4×10^6 Btu/hr (LHV) and fired on SNG and purge gases	BA-4403	BA-4403	None
Ammonia plant solution regeneration	FA-4427	FA-4427	None
Ash handling (lignite coal ash receiving and conveying)	GB-8201 (A & B)	GB-8201 AX/BX (Common Stack)	Ash Sluice Water Reagent Scrubber
Ammonium sulfate handling (receiving, drying, screening, and conveying)	GB-5807A	GB-5807A	Baghouse

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Two Zurn Keystone start-up boilers each with a rated capacity of 120 x 10 ⁶ Btu/hr and fired on SNG	BF-5601-X (#1 & #2)	CA-5601 (Common Stack)	None
Fourteen gasifiers, each gasifier has a coal lock vent	DA-1103 A-G & DA-1123 A-G	DA-1103 A-G & DA-1123 A-G	Ash Sluice Water Reagent Scrubber
Start-up flare	CB-1182	CB-1182	None
Back-up flare	CB-1181	CB-1181	None
Main flare	CB-8301	CB-8301	None
Ammonia plant flare	CB-4401	CB-4401	None
Ammonia storage tank flare	CB-6001	CB-6001	None
Secondary crushing	CD-2201*	Fugitive	Fogging System
Secondary crushing	CD-2202*	Fugitive	Fogging System
Primary coal sampling	CD-2301*	Fugitive	Fogging System
Fines screenings	CD-2501 & CD-2502	CD-2501 & CD-2502 (Common Stack)	Baghouse
Upper fines silo	CD-2701	CD-2701	Baghouse
Lower fines silo	CD-2702	CD-2702	Baghouse
Secondary coal sampling	CD-2601	CD-2601	Baghouse
Transfer tower No. 2	CD-2602*	Fugitive	Fogging System
North coal bin	CD-2603*	Fugitive	Fogging System
South coal bin	CD-2604*	Fugitive	Fogging System
Gasifier feed	CD-2605*	Fugitive	Fogging System
Gasification unit emergency generator engine fired on distillate oil and rated at 1200 bhp	GE-1101	GE-1101	None
Oxygen plant emergency generator engine fired on distillate oil and rated at 1200 bhp	GE-3002	GE-3002	None
Phosam unit emergency generator engine fired on distillate oil and rated at 1200 bhp	GE-4601	GE-4601	None
Boiler area emergency generator engine fired on distillate oil and rated at 1600 bhp	GE-5101	GE-5101	None
Three portable water transfer pump diesel engines fired on distillate oil and each rated at 80 bhp (built pre-2006)	E4, E5 & E6	E4, E5 & E6	None
Two portable hydroblaster diesel engines fired on distillate oil and each rated at 200 bhp (built 1983 & 1988)	E7 & E8	E7 & E8	None
Two portable hydroblaster diesel engines fired on distillate oil and each rated at 300 bhp (built 1990 & 1999)	E9 & E10	E9 & E10	None
Portable air compressor diesel engine fired on distillate oil and rated at 170 bhp (built pre-2006)	E12	E12	None
Portable air compressor diesel engine fired on distillate oil and rated at 80 bhp (built pre-2006)	E13	E13	None
Portable air compressor diesel engine fired on distillate oil and rated at 100 bhp (built 2009)	E14	E14	None
Two emergency fire water pumps each with a diesel engine fired on distillate oil and rated at 357 bhp (built pre-2006)	E15 & E16	E15 & E16	None
One emergency fire water pump with a diesel engine fired on distillate oil and rated at 99 bhp (built pre-2006)	E17	E17	None

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
62,000 gallon methanol storage tank (1982)	FB-1421	FB-1421	Internal Floating Roof
88,000 gallon MDEA solution storage tank (2008)	FB-4413*	FB-4413	None
75,000 gallon tar oil storage tank (1983)	FA-5023*	FA-5023	None
Two 100,000 gallon tar oil storage tanks (1982) (1982)	FB-5101* & FB-5101S*	FB-5101 & FB-5101S	None
420,000 gallon naphtha storage tank (1982)	FB-6001	FB-6001	Internal Floating Roof
Two 756,000 gallon tar oil storage tanks (1982) (1982)	FB-6003A* & FB-6003B*	FB-6003A & FB-6003B	None (Internal Floating Roofs to be installed 2011-2012)
420,000 gallon crude phenol storage tank (1983)	FB-6004*	FB-6004	None
66,150 gallon methanol storage tank (1983)	FB-6005	FB-6005	Internal Floating Roof
287,700 gallon isopropyl ether storage tank (1982)	FB-6010	FB-6010	Internal Floating Roof
120,000 gallon cresylic acid storage tank (1990)	FB-6051*	FB-6051	None
2,100 gallon cresylic acid storage tank (1994)	FB-6054*	FB-6054	None
23,739 gallon cresylic acid storage tank (1994)	FB-6055*	FB-6055	None
20,000 gallon naphtha/phenol storage tank used as a backup to FA-5116A (a vessel with vent gas routed to the Riley boilers) (1982)	FB-5103B	FB-5103B	Vent Collection System
Main cooling tower	EF-5502*	Fugitive	None
Ammonia plant cooling tower	EF-5551*	Fugitive	None
30,500 gallon phenol storage tank (1990)	FB-6053A	FB-6053A	None
30,500 gallon phenol storage tank (1990)	FB-6053B	FB-6053B	None
70,000 gallon injection gas liquor buffer tank (1982)	FB-1802	FB-1802	Conservation Vent (CV) & Vapor Control Scrubber
45,000 gallon final gas liquor storage tank (1982)	FB-1803	FB-1803	CV & Vapor Control Scrubber
24,800 gallon tar oil tank (1982)	FB-1805A	FB-1805A	CV & Vapor Control Scrubber
24,800 gallon tar oil tank (1982)	FB-1805B	FB-1805B	CV & Vapor Control Scrubber
5,670,000 gallon gas liquor buffer tank (1982)	FB-1808	FB-1808	CV & Vapor Control Scrubber
67,200 gallon mud liquor storage tank (1982; modified 2003)	FB-1810	FB-1810	CV & Vapor Control Scrubber
4,725,000 gallon stripped gas liquor storage tank (1982)	FB-1811	FB-1811	CV & Vapor Control Scrubber
76,000 gallon filter backwash storage tank (1982)	FB-1812	FB-1812	CV & Vapor Control Scrubber
11,000 gallon rocket tank (1990)	FB-1850*	FB-1850	None
30,000 gallon phenol storage tank (1990)	FB-1670*	FB-1670	None
30,000 gallon phenol/cresylic acid storage tank (1990)	FB-1671*	FB-1671	None
11,000 gallon phenol/cresylic acid storage tank (1990)	FB-1672A*	FB-1672A	None
11,000 gallon cresylic acid storage tank (1990)	FB-1672B*	FB-1672B	None
20,000 gallon naphtha/phenol storage tank (2008)	FA-5116A	FA-5116A	Vent Collection System

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
20,000 gallon naphtha phenol storage tank (1982)	FB-5103B*	FB-5103B	Floating Roof with Vent Gas Recovery
21,000 gallon slop oil tank (1982)	FB-6006*	FB-6006	None
110,000 gallon distillate surge tank (1982)	FB-8106*	FB-8106	None
5,200 gallon 20% caustic tank (1982)	FB-8108*	FB-8108	None
10,000 gallon TEG tank (1990)	FB-4701*	FB-4701	None

*Insignificant or fugitive emission sources (no specific emission limit).

2. Continuous Emission Monitoring System (CEMS) Identification:

Emissions are monitored by the following monitors:

Monitor Location	Pollutant Monitored	Manufacturer/Model
Main Stack	SO ₂ (lb/hr)	Thermo Environmental Instruments / 43I
	NO _x (lb/hr)	Thermo Environmental Instruments / 42I
	Opacity (%)	Durag DR-290
	Flow	EMRC / Gas Flow Monitor or Optical Scientific, Inc. Optical Flow Monitor
Bypass Stack (The monitors are used for boiler startups/shutdowns and flue gas desulfurization malfunction emissions in the bypass stack)	SO ₂ (lb/hr)	Thermo Environmental Instruments / 43C
	NO _x (lb/hr)	Thermo Environmental Instruments / 42C
	Opacity (%)	Durag DR 290
	Flow	EMRC / Gas Flow Monitor
FGD Inlet Duct*	SO ₂ (lb/hr)	Thermo Environmental Instruments / 43C
	Flow	EMRC / Gas Flow Monitor
Superheater* (Reheat Duct)	SO ₂ (lb/hr)	Thermo Environmental Instruments / 43C
	Flow	EMRC / Gas Flow Monitor

* Monitoring requirements shall be in accordance with Condition 12.B.3 as applicable.

3. Fuel Restrictions:

- A. EU BF-5101 (Riley Boilers A, B & S) and BF-5002 (Superheaters A & B) shall be operated using only waste gas, fuel gas, tar oil, naphtha, phenol, substitute natural gas (SNG), or other lignite-derived fuels. Substitute fuels may be used for tar oil if analytical lab analysis shows the substitute fuel is less than or equal to tar oil in the content of ash, sulfur and nitrogen per Btu.

Applicable Requirement: Permit to Construct (PTC) 10027

- B. EU BA-4402 (ammonia plant start-up heater), BF-5601-X (Zurn start-up Boilers #1 & #2) and BA-1701 (start-up heater) shall be operated using only SNG.

Applicable Requirement: PTC Condition (Cond.)

- C. EU BA-4403 (ammonia plant feed gas heater) shall be operated only on SNG and purge gases.

Applicable Requirement: PTC Cond.

- D. Diesel engines are restricted to combusting only distillate oil with no more than 15 ppm sulfur. This fuel restriction ensures compliance with NDAC 33-15-06-01.2.

Applicable Requirements: NDAC 33-15-06-01.2 and NDAC 33-15-14-03.6

- E. The burning of hazardous waste is allowed only in the three Riley boilers [EU BF-5101 (A, B and S)] and shall comply with NDAC Sections 33-24-05-525 through 33-25-05-549 - Boilers Industrial Furnaces (BIFs).

Applicable Requirement: PTC Cond.

- F. EU DA-1103 A-G and DA-1123 A-G (gasifiers) shall utilize only lignite coal as feedstock.

Fuels and feedstock, other than those listed above, may be burned or charged provided the following conditions are met:

Acceptable gasification feedstock shall meet the recycling criteria established in Section 33-24-02-02(5)(a) of the NDAC and must not be a listed hazardous waste. The Department shall approve in writing all initial feedstock usage. Any change in feedstock which will significantly increase emissions as defined in the Prevention of Significant Deterioration (PSD) rules shall require Departmental approval.

Applicable Requirement: PTC Cond.

4. Miscellaneous Conditions:

- A. Production Rate: For purposes of this permit and the PSD rules, an increase in production rate above 170 million standard cubic feet per day (based on a 12-month calendar average) that causes a significant increase in actual emissions is considered a major modification.

Applicable Requirement: PTC 3/23/93

- B. Like-Kind Engine Replacement: This permit allows the permittee to replace the existing engines with like-kind engines. Replacement is subject to the following conditions:

- 1) The Department must be notified at least 30 days prior to the proposed change-out. The permittee must also comply with all applicable notification requirements of 40 CFR Parts 60 and 63.
- 2) The replacement engine shall operate in the same manner, provide no increase in throughput and have equal or less emissions than the engine it is replacing.
- 3) The date of manufacture of replacement engine must be included in the notification. The facility must comply with any applicable Federal standards (e.g. NSPS, NESHAP, MACT) triggered by the replacement.
- 4) The replacement engine is subject to the same State emission limits as the existing engine in addition to any NSPS or MACT emission limit that is applicable.

Applicable Requirement: NDAC 33-15-14-03.6

5. Emission Unit(s) Limits:

Emission Unit Description	EU	EP	Pollutant/Parameter	Emission/Parameter Limit**	NDAC Applicable Requirement
Combined Riley boilers after FGD and super-heater discharge	1	CA-5701 (Common Main Stack)	Particulate Matter* (PM)	138 lb/hr	PTC 3/23/93
			SO ₂	3,091 lb/hr	PTC Cond.
			NO _x	860 lb/hr (30-day rolling average)	PTC 3/23/93
			Opacity	See Conditions 7.A & 7.B	33-15-12-02, Subpart D & 33-15-03-02
Three Riley boilers	BF-5101 (A, B & S)	CA-5701 (Common Main Stack)	SO ₂	0.80 lb/10 ⁶ Btu*** (each) (3-hr rolling average)	33-15-12-02, Subpart D
			PM	0.10 lb/10 ⁶ Btu*** (each)	33-15-12-02, Subpart D
Two heat transfer system superheaters	BF-5002 (A & B)	CA-5701 (Common Main Stack)	SO ₂	3.0 lb/10 ⁶ Btu (1290 ng/J) (each)	33-15-06
			PM	0.1 lb/10 ⁶ Btu (each)	PTC 3/23/93
Start-up heater	BA-1701	BA-1701	PM	0.3 lb/hr	33-15-14-06.5.b(1)
			NO _x	12.8 lb/hr	33-15-14-06.5.b(1)
			Opacity	See Cond. 7.A	33-15-03-02

Emission Unit Description	EU	EP	Pollutant/Parameter	Emission/Parameter Limit**	NDAC Applicable Requirement
Ammonia plant start-up heater	BA-4402	BA-4402	PM	0.5 lb/hr	PTC 12/5/95
			NO _x	9.0 lb/hr	PTC 12/5/95
			CO	2.2 lb/hr	PTC 12/5/95
			Opacity	See Cond. 7.A	33-15-03-02
			Hours of Operation	72 hr/yr (12-month rolling total)	PTC 12/5/95
Ammonia plant feed gas heater	BA-4403	BA-4403	PM	1.95 lb/hr	PTC 12/5/95
			NO _x	0.10 lb/10 ⁶ Btu*** (30-day rolling average) & 9.13 lb/hr (30-day rolling average)	40 CFR Part 60, Subpart Db & PTC10027
			CO	6.5 lb/hr	PTC 12/5/95
			Opacity	See Cond. 7.A	40 CFR Part 60, Subpart Db & 33-15-03-02
Ammonia plant solution regeneration	FA-4427	FA-4427	CO	16.8 lb/hr	PTC 12/5/95
			Opacity	See Cond. 7.A	33-15-03-02
Ash handling	GB-8201 (A & B)	GB-8201 AX/BX (Common Stack)	PM	6.1 lb/hr	PTC Cond.
			Opacity	See Cond. 7.A	33-15-03-02
Ammonium sulfate handling	GB-5807A	GB-5807A	PM	3.0 lb/hr	PTC Cond.
			Opacity	See Cond. 7.A	33-15-03-02
Two Zurn Keystone start-up boilers	BF-5601-X (#1 & #2)	CA-5601 (Common Stack)	PM	8.4 lb/hr (each)	PTC 3/23/93
			NO _x	16.8 lb/hr (each)	PTC 3/23/93
			Opacity	See Cond. 7.A	33-15-03-02
Fourteen gasifiers with coal lock vents	DA-1103 A-G & DA-1123 A-G	DA-1103 A-G & DA-1123 A-G	PM	0.6 lb/hr (each)	PTC 3/23/93
			Total Reduced Sulfur (TRS)	0.3 lb/hr (each)	PTC 3/23/93
			Opacity	See Cond. 7.A	33-15-03-02
Start-up flare	CB-1182	CB-1182	SO ₂	119 lb/hr (3-hr rolling avg.) & 3,520 lb/hr upset condition – 15 minutes	PTC Cond.
			Opacity	See Cond. 7.C	33-15-03-02

Emission Unit Description	EU	EP	Pollutant/Parameter	Emission/Parameter Limit**	NDAC Applicable Requirement
Back-up flare	CB-1181	CB-1181	SO ₂	78 lb/hr (3-hr rolling avg.) & 2,940 lb/hr upset condition – 15 minutes	PTC Cond.
			Opacity	See Cond. 7.C.	33-15-03-02
Main flare	CB-8301	CB-8301	SO ₂	230 lb/hr (3-hr rolling avg.) & 12,021 lb/hr upset condition – 15 minutes	PTC Cond.
			Opacity	See Cond. 7.C	33-15-03-02
Ammonia plant flare	CB-4401	CB-4401	Opacity	See Cond. 7.C	33-15-03-02
Ammonia storage tank flare	CB-6001	CB-6001	Opacity	See Cond. 7.C	33-15-03-02
Secondary crushing	CD-2201	CD-2201	Opacity	See Cond. 7.D & 7.E	33-15-12 Subpart Y & 33-15-03-02
Secondary crushing	CD-2202	CD-2202	Opacity	See Cond. 7.D & 7.E	33-15-12 Subpart Y & 33-15-03-02
Primary coal sampling	CD-2301	CD-2301	Opacity	See Cond. 7.D & 7.E	33-15-12 Subpart Y & 33-15-03-02
Fines screenings	CD-2501 & CD 2502	CD-2501 & CD- 2502 (Common Stack)	PM	9.2 lb/hr	PTC 3/23/93
			Opacity	See Cond. 7.A & 7.D	33-15-03-02 & 33-15-12-02 Subpart Y
Upper fines silo	CD-2701	CD-2701	PM	2.1 lb/hr	PTC 3/23/93
			Opacity	See Cond.7.A & 7.D	33-15-03-02 & 33-15-12-02 Subpart Y
Lower fines silo	CD-2702	CD-2702	PM	2.0 lb/hr	PTC 3/23/93
			Opacity	See Cond. 7.A & 7.D	33-15-03-02 & 33-15-12-02 Subpart Y
Secondary coal sampling	CD-2601	CD-2601	PM	5.1 lb/hr	PTC 3/23/93
			Opacity	See Cond. 7.A & 7.D	33-15-03-02 & 33-15-12-02 Subpart Y
Transfer tower No. 2	CD-2602	CD-2602	Opacity	See Cond. 7.D & 7.E	33-15-12 Subpart Y & 33-15-03-02
North coal bin	CD-2603	CD-2603	Opacity	See Cond. 7.D & 7.E	33-15-12 Subpart Y & 33-15-03-02
South coal bin	CD-2604	CD-2604	Opacity	See Cond. 7.D & 7.E	33-15-12 Subpart Y & 33-15-03-02
Gasifier feed	CD-2605	CD-2605	Opacity	See Cond. 7.D & 7.E	33-15-12 Subpart Y & 33-15-03-02
Gasification unit emergency generator engine	GE-1101	GE-1101	Opacity	See Cond. 7.A	33-15-03-02

Emission Unit Description	EU	EP	Pollutant/Parameter	Emission/Parameter Limit**	NDAC Applicable Requirement
Oxygen plant emergency generator engine	GE-3002	GE-3002	Opacity	See Cond. 7.A	33-15-03-02
Phosam unit emergency generator engine	GE-4601	GE-4601	Opacity	See Cond. 7.A	33-15-03-02
Boiler area emergency generator engine	GE-5101	GE-5101	Opacity	See Cond. 7.A	33-15-03-02
Portable air compressor engine	E12	E12	Opacity	See Cond. 7.A	33-15-03-02
Three portable water transfer pump engines	E4, E5 & E6	E4, E5 & E6	Opacity See Cond. 10.D	See Cond. 7.A See Cond. 10.D	33-15-03-02
Two portable hydroblaster engines	E7 & E8	E7 & E8	Opacity	See Cond. 7.A	33-15-03-02
Two portable hydroblaster engines	E9 & E10	E9 & E10	Opacity	See Cond. 7.A	33-15-03-02
Portable air compressor engine	E13	E13	Opacity See Cond. 10.D	See Cond. 7.A See Cond. 10.D	33-15-03-02
Portable air compressor engine	E14	E14	Opacity	See Cond. 7.A	33-15-03-02
Two emergency fire water pump engines	E15 & E16	E15 & E16	Opacity See Cond. 10.D	See Cond. 7.A See Cond. 10.D	33-15-03-02 40 CFR 63, Subpart ZZZZ (4Z)
Emergency fire water pump engine	E17	E17	Opacity See Cond. 10.D	See Cond. 7.A See Cond. 10.D	33-15-03-02 40 CFR 63, Subpart 4Z
62,000 gallon methanol storage tank	FB-1421	FB-1421	See Cond. 10.E	See Cond. 10.E	40 CFR 63, Subpart EEEE (4E)
88,000 gallon MDEA solution storage tank	FB-4413	FB-4413	See Cond. 9.C	See Cond. 9.C	33-15-12-02, Subpart Kb
420,000 gallon naphtha storage tank	FB-6001	FB-6001	See Cond. 11.A	See Cond. 11.A	33-15-13-01.2, Subpart J
Two 756,000 gallon tar oil storage tanks	FB-6003A & FB-6003B	FB-6003A & FB-6003B	See Cond. 10.E	See Cond. 10.E	40 CFR 63, Subpart 4E
420,000 gallon crude phenol storage tank	FB-6004	FB-6004	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
66,150 gallon methanol storage tank	FB-6005	FB-6005	See Cond. 10.E	See Cond. 10.E	40 CFR 63, Subpart 4E
120,000 gallon cresylic acid storage tank	FB-6051	FB-6051	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
2,100 gallon cresylic acid storage tank	FB-6054	FB-6054	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
23,739 gallon cresylic acid storage tank	FB-6055	FB-6055	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
20,000 gallon naphtha/phenol storage tank used as a backup to FA-5116A (a vessel with vent gas routed to the Riley boilers)	FB-5103B	FB-5103B	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G

Emission Unit Description	EU	EP	Pollutant/Parameter	Emission/Parameter Limit**	NDAC Applicable Requirement
30,500 gallon phenol storage tank	FB-6053A	FB-6053A	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
30,500 gallon phenol storage tank	FB-6053B	FB-6053B	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
24,800 gallon tar oil tank	FB-1805A	FB-1805A	See Cond. 10.E	See Cond. 10.E	40 CFR 63, Subpart 4E
24,800 gallon tar oil tank	FB-1805B	FB-1805B	See Cond. 10.E	See Cond. 10.E	40 CFR 63, Subpart 4E
67,200 gallon mud liquor storage tank	FB-1810	FB-1810	See Cond. 9.C	See Cond. 9.C	33-15-12-02, Subpart Kb
30,000 gallon phenol storage tank	FB-1670	FB-1670	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
30,000 gallon phenol/cresylic acid storage tank	FB-1671	FB-1671	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
11,000 gallon phenol/cresylic acid storage tank	FB-1672A	FB-1672A	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
11,000 gallon cresylic acid storage tank	FB-1672B	FB-1672B	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
20,000 gallon naptha/phenol storage tank	FA-5116A	FA-5116A	See Cond. 9.C, 10.A & 10.B	See Cond. 9.C, 10.A & 10.B	33-15-12-02, Subpart Kb; & 33-15-22-03, Subparts F & G
20,000 gallon naptha/phenol storage tank	FB-5103B	FB-5103B	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G
10,000 gallon TEG tank	FB-4701	FB-4701	See Cond. 10.A & 10.B	See Cond. 10.A & 10.B	33-15-22-03, Subparts F & G

* Particulate matter (PM), when referred to in limits within this permit, is defined as the amount of filterable particulate present when stack testing is performed according to EPA's Method 5 or Method 17 protocol.

** Emission limits are based on a 1-hour average, unless otherwise noted.

*** This standard does not apply during startup, shutdown or malfunction.

6. **Ammonia Sulfate FGD Removal Efficiency:** The SO₂ removal efficiency of the ammonium sulfate FGD system shall be a minimum of 93% (24-hour block average).

Applicable Requirement: PTC 3/23/93

7. **Opacity Limits:** The emission units listed in Condition 5 shall not exceed the following applicable opacity limits:

A. Twenty percent, except that a maximum of forty percent is permissible for not more than one six-minute period per hour. This standard applies at all times.

Applicable Requirement: NDAC 33-15-03-02

- B. Twenty percent, except that a maximum of twenty-seven percent is permissible for not more than one six-minute period per hour. This standard does not apply during startup, shutdown and malfunction.

Applicable Requirements: NDAC 33-15-12-02, Subpart A and Subpart D

- C. Twenty percent, except that a maximum of sixty percent is permissible for not more than one six-minute period per hour. This standard applies at all times.

Applicable Requirement: NDAC 33-15-03-03

- D. Twenty percent opacity or greater shall not be discharged into the atmosphere. This standard does not apply during startup, shutdown and malfunction.

Applicable Requirements: NDAC 33-15-12-02, Subpart A and Subpart Y

- E. For fugitive sources, forty percent for not more than one six-minute period per hour. This standard applies at all times.

Applicable Requirement: NDAC 33-15-03-03

8. **Emissions and Contingency Plan During Flue Gas Desulfurization (FGD) Malfunction:** During a malfunction of the FGD, the combined emissions from the common main stack (EP CA-5701) and the bypass stack (EP CA-5101) shall be limited to the following:

SO₂: 3,091 lb/hr (1-hour average)

NO_x: 860 lb/hr (30-day rolling average)

Opacity: See Condition 7.A and 7.B (each stack)

In addition, action shall be taken as outlined in Dakota Gasification Company's FGD Malfunction, Air Pollution Control Contingency Plan, November 1995 in Attachment B of this permit.

Applicable Requirement: PTC Cond.

9. **New Source Performance Standards (NSPS):** In addition to complying with 40 CFR Part 60, Subpart A, General Provisions, the permittee shall comply with the applicable requirements of the following 40 CFR Part 60 subparts as incorporated into Section 33-15-12-02 of the North Dakota Air Pollution Control Rules. Affected emission units include, but are not limited to, those identified by Condition 5 applicable requirements and as indicated below.

- A. Subpart D: Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction Is Commenced After August 17, 1971.

Applicable Requirement: NDAC 33-15-12-02, Subpart D

- B. Subpart Db: Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.

Applicable Requirement: NDAC 33-15-12-02, Subpart Db

- C. Subpart Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction or Modification Commenced after July 23, 1984. Affected emission units are FB-1810 and FB-4413.

Applicable Requirement: NDAC 33-15-12-02, Subpart Kb

- D. Subpart Y: Standards of Performance for New Stationary Sources: Coal Preparation Plants. Affected source units are CD-2201, CD-2202, CD-2301, CD-2501, CD-2502, CD-2701, CD-2702, CD-2601, CD-2602, CD-2603, CD-2604 and CD-2605.

Applicable Requirement: NDAC 33-15-12-02, Subpart Y

- E. Subpart VVa: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. Affected source units and requirements include but are not limited to the following:

Area	Equipment	Standards/Applicable Requirements	Monitoring/Recordkeeping/Reporting
1600 B Phenosolvan	Connectors, valves, open-ended valves, pumps, pressure relief devices, vessels	40 CFR Part 60 Subpart A general provisions	40 CFR Part 60 Subpart A general provisions
	FP-1631A Stage A extractor	40 CFR Part 60 Subpart VVa	Leak detection and leak repair program
	FP-1631B Stage B extractor	Standards of Performance	(Method 21 of Appendix A of 40 CFR Part 60)
	FP-1631C Stage C extractor	Equipment	Recording keeping in accordance with Section 60.486a of 40 CFR 60.
	FP-1631D Stage D extractor	Leaks of VOC in the Synthetic Organic Manufacturing industry	Reporting in accordance with Section 60.487a of 40 CFR Part 60.
	FP-1631E Stage E extractor		
	FA-1631 Raffinate Settler		
	FA-1633 Extract separator		
	FA-1635 Extract receiver		
	FA-1645 Chemical slop receiver		

Applicable Requirement: 40 CFR Part 60, Subpart VVa

10. **National Emission Standards for Hazardous Air Pollutants for Source Categories (MACT):** In addition to complying with 40 CFR Part 63, Subpart A, General Provisions, the permittee shall comply with the applicable requirements of the following 40 CFR Part 63 subparts as incorporated where

applicable into Section 33-15-22-03 of the North Dakota Air Pollution Control Rules. Affected source units include, but are not limited to, those identified by Condition 5 applicable requirements and the table below.

- A. Subpart F: National Emissions Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry.

Applicable Requirement: NDAC 33-15-22-03, Subpart F

- B. Subpart G: National Emissions Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.

Applicable Requirement: NDAC 33-15-22-03, Subpart G

- C. Subpart H: National Emissions Standards for Organic Hazardous Air Pollutants for Equipment Leaks.

Applicable Requirement: NDAC 33-15-22-03, Subpart H

- D. Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. This subpart is applicable beginning May 3, 2013 to stationary reciprocating internal combustion engines as identified in Condition 5.

Applicable Requirement: NDAC 33-15-22-03, Subpart ZZZZ

- E. Subpart EEEE: National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline). Although the North Dakota Department of Health (NDDH) has requested delegation of this subpart from EPA, until delegated EPA Region 8 remains the implementation and enforcement authority. Send all required reports and documentation to EPA Region 8 at the following address and send a copy to NDDH.

Air & Toxics Technical Enforcement Program (8ENF-AT)
Office of Enforcement, Compliance & Environmental Justices
US EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Applicable Requirement: 40 CFR 63, Subpart EEEE

Area	Equipment	Standards/Applicable Requirements*	Monitoring/Recordkeeping/Reporting
Phenol Processing (Distillation, Storage and Product Loading)	<ul style="list-style-type: none"> - Valves, sampling connections, pumps, open end valves and connections (heavy liquid service) - Group 2 loading rack: 	<ul style="list-style-type: none"> - 40 CFR Part 63, Subpart A - General Provisions - 40 CFR Part 63, Table 3 to Subpart F - General 	<ul style="list-style-type: none"> - 40 CFR Part 63, Subpart A - General Provisions - Quarterly (calendar) leak detection and repair

Area	Equipment	Standards/Applicable Requirements*	Monitoring/Recordkeeping/Reporting
<ul style="list-style-type: none"> - Crude Phenol (Processing (Area 1650) - Phenol Purification and Drying (Area 4700) - Acid Flash and Storage (Area 6050) 	<p>Acid Flash and Storage, Area 6050 (Phenol and Cresylic Acids)</p> <ul style="list-style-type: none"> - Product Storage Vessel: <ul style="list-style-type: none"> FB-1670 Crude Phenol (25,000 gallons) FB-1671 Dehy Bottoms (25,000 gallons) FB-1672A Acid Flashed Phenols (8,000 gallons) FB-1672B Cresylic Acids (8,000 gallons) FB-4701 Solvent (10,000 gallons) FB-6053A Phenol (25,000 gallons) FB-6053B Phenol (25,000 gallons) - Process Vents <ul style="list-style-type: none"> FA-1671 (Crude Phenol Processing, Area 1650) DA-4702 and DA-4703 (Phenol Purification and Drying, Area 4700) FA-6052 (Acid Flash and Storage, Area 6050) 	<p>Provisions Applicability to Subpart F, G and H</p> <ul style="list-style-type: none"> - 40 CFR Part 63, Subpart F - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Hazardous Chemical Manufacturing Industry - 40 CFR Part 63, Subpart G - National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing, Industry, Process Vents, Storage Vessels, Transfer Operations and Wastewater - 40 CFR Part 63, Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks - TRE >4 for process vents - Operate with instrument reading of <500 ppm for equipment leaks 	<p>programs (visual leak/no leak and/or EPA Reference Method 21 of Appendix A of 40 CFR Part 60)</p> <ul style="list-style-type: none"> - Section 63.103 of 40 CFR Part 63, General Compliance, Reporting and Recordkeeping Provisions
<p>Methanol Production:</p> <ul style="list-style-type: none"> - Reactor and Piping (Area 4900) - Rail Car Loading (Area 6000) 	<ul style="list-style-type: none"> - Valves, sampling connections, pumps, open ended valves and connections (light liquid service) plus transfer rack and flare 		

Area	Equipment	Standards/Applicable Requirements*	Monitoring/Recordkeeping/Reporting
Three Riley boilers - BF-5100 (A, B and S), two superheaters, start-up boiler, 700 start-up heater, ammonia pant start-up heater and feed gas heater	Industrial Boiler and Process Heater MACT (effective date delayed indefinitely 5/18/11)		
Stationary Diesel Engines	Reciprocating Industrial Engine (RICE) NESHAP		
Applicable Tar Oil System and Existing HON Areas (1810 and 6000 Areas)	Organic Liquid Distribution (OLD) NESHAP; covers the same areas as the HON NESHAP		

* Applies to fugitive emissions.

11. **National Emission Standards for Hazardous Air Pollutants (NESHAPS):** In addition to complying with 40 CFR Part 61, Subpart A, General Provisions, the permittee shall comply with the applicable requirements of the following 40 CFR Part 61 subparts as incorporated into Subsection 33-15-13-01.2 of the North Dakota Air Pollution Control Rules. Affected emission units include, but are not limited to, those identified by Condition 5 applicable requirements and the table below.

A. Subpart J: National Emission Standard for Equipment Leaks (fugitive emission sources) of Benzene.

Applicable Requirement: NDAC 33-15-13-01.2 Subpart J

B. Subpart M: National Emission Standard for Asbestos. Subpart M is potentially applicable during facility modifications involving asbestos.

Applicable Requirement: NDAC 33-15-13-01.2 Subpart M

C. Subpart V: National Emission Standard for Equipment Leaks (fugitive emission sources).

Applicable Requirement: NDAC 33-15-13-01.2 Subpart V

Area	Equipment	Standards/Applicable Requirements	Monitoring/Recordkeeping/Reporting
Benzene Containing Equipment (Distillation, caustic washing, storage and product loading): - Rectisol (Area 1400)	- Valves, connectors, pumps, sampling systems, storage vessel, flare and loading operation	- 40 CFR Part 61, Subpart A - General Provisions - 40 CFR Part 61, Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	- 40 CFR Part 61, Subpart A - General Provisions - Annual leak detection and repair program (EPA Reference Method 21 of Appendix A of 40 CFR Part

Area	Equipment	Standards/Applicable Requirements	Monitoring/Recordkeeping/Reporting
<ul style="list-style-type: none"> - Naphtha Treating (Area 1400) - Boiler Fuel (Area 5100) - Storage and Transfer Operations (Area 6000) 		<ul style="list-style-type: none"> - 40 CFR Part 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) - Operate with instrument reading of <10,000 ppm for equipment leaks 	60) <ul style="list-style-type: none"> - Recordkeeping in accordance with Section 61.246 of 40 CFR Part 61, Recordkeeping Requirements - Reporting in accordance with Section 61.247 of 40 CFR Part 61, Reporting Requirements

12. Monitoring Requirements and Conditions:

A. Requirements

1) Emission unit(s) monitoring requirements:

Emission Unit Description	EU	EP	Pollutant/Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Combined Riley boilers after FGD and superheaters discharge	1	CA-5701 (Common Main Stack)	SO ₂	CEMS	12.B.1,12.B.2, 12.B.3,12.B.4, 12.B.6 & 12.B.7	PTC Cond.
			NO _x	CEMS	12.B.1,12.B.2, 12.B.3,12.B.4, 12.B.6 & 12.B.7	PTC Cond.
			PM	Emissions Test/Compliance Assurance Monitoring (CAM)	12.B.13 & 12.B.16	33-15-14-06.5.a(3)(a) & 33-15-14-06.10
			Opacity	CEMS	12.B.1,12.B.5, 12.B.6 & 12.B.7	33-15-12-02, Subpart D
Three Riley boilers	BF-5101 (A, B & S)	CA-5701 (Common Main Stack)	SO ₂	CEMS Concept	12.B.3	PTC Cond.
			PM	CAM	12.B.16	33-15-14-06.5.a(3)(a)
Two heat transfer system superheaters	BF-5002 (A & B)	CA-5701 (Common Main Stack)	SO ₂	CEMS Concept; or SO ₂ calculation based on fuel characteristics	12.B.3	PTC Cond.
			PM	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)

Emission Unit Description	EU	EP	Pollutant/Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Bypass stack	BF-5101 (A, B & S) & BF-5002 (A & B)	CA-5101 (Bypass Stack)	SO ₂	CEMS	12.B.1,12.B.2, 12.B.3,12.B.4, 12.B.6 & 12.B.7	33-15-14-06.5.a(3)(a)
			NO _x	CEMS	12.B.1,12.B.2, 12.B.3,12.B.4, 12.B.6 & 12.B.7	33-15-14-06.5.a(3)(a)
			Opacity	CEMS	12.B.1,12.B.5, 12.B.6 & 12.B.7	33-15-14-06.5.a(3)(a)
Start-up heater	BA-1701	BA-1701	PM	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
			NO _x	Emissions Test/O&M	12.B.10	33-15-14-06.5.a(3)(a)
			Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
			Hours of Operation	Recordkeeping	12.B.15	33-15-14-06.5.a(3)(a)
Ammonia plant startup heater	BA-4402	BA-4402	Hours of Operation	Recordkeeping	12.B.15	33-15-14-06.5.a(3)(a)
Ammonia plant feed gas heater	BA-4403	BA-4403	PM	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
			Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
			NO _x	Predictive Monitoring System	12.B.8	33-15-12, Subpart Db
			CO	Emissions Test/O&M	12.B.10	33-15-14-06.5.a(3)(a)
Ammonia plant solution regeneration	FA-4427	FA-4427	CO	Emissions Test/O&M	12.B.10	33-15-14-06.5.a(3)(a)
			Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Ash handling	GB-8201 (A & B)	GB-8201 AX/BX (Common Stack)	PM	CAM	12.B.16	33-15-14-06.10
			Opacity	Visible Emissions (VE) Observations	12.B.14	33-15-14-06.5.a(3)(a)
Ammonium sulfate handling	GB-5807A	GB-5807A	PM/Opacity	CAM	12.B.16	33-15-14-06.10

Emission Unit Description	EU	EP	Pollutant/Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Two Zurn Keystone start-up boilers	BF-5601-X (#1 & #2)	CA-5601 (Common Stack)	PM	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
			NO _x	Emissions Test/O&M	12.B.10	33-15-14-06.5.a(3)(a)
			Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
			Hours of Operation	Recordkeeping	12.B.15	33-15-14-06.5.a(3)(a)
Fourteen gasifiers with coal lock vents	DA-1103 A-G & DA-1123 A-G	DA-1103 A-G & DA-1123 A-G	PM	CAM	12.B.16	33-15-14-06.10
			TRS	CAM	12.B.16	33-15-14-06.10
			Opacity	VE Observations	12.B.14	33-15-14-06.5.a(3)(a)
Start-up flare	CB-1182	CB-1182	SO ₂	Parameter Monitoring	12.B.12	33-15-14-06.5.a(3)(a)
			Opacity	VE Observations	12.B.12	33-15-14-06.5.a(3)(a)
Back-up flare	CB-1181	CB-1181	SO ₂	Parameter Monitoring	12.B.12	33-15-14-06.5.a(3)(a)
			Opacity	VE Observations	12.B.12	33-15-14-06.5.a(3)(a)
Main flare	CB-8301	CB-8301	SO ₂	Parameter Monitoring	12.B.12	33-15-14-06.5.a(3)(a)
			Opacity	VE Observations	12.B.12	33-15-14-06.5.a(3)(a)
Ammonia plant flare	CB-4401	CB-4401	Opacity	VE Observations	12.B.14	33-15-14-06.5.a(3)(a)
Ammonia storage tank flare	CB-6001	CB-6001	Opacity	VE Observations	12.B.14	33-15-14-06.5.a(3)(a)
Fines screenings	CD-2501 & CD-2502	CD-2501 & CD-2502 (Common Stack)	PM/Opacity	CAM	12.B.16	33-15-14-06.10
Upper fines silo	CD-2701	CD-2701	PM/Opacity	CAM	12.B.16	33-15-14-06.10
Lower fines silo	CD-2702	CD-2702	PM/Opacity	CAM	12.B.16	33-15-14-06.10
Secondary coal sampling	CD-2601	CD-2601	PM/Opacity	CAM	12.B.16	33-15-14-06.10
Gasification unit emergency generator engine	GE-1101	GE-1101	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Oxygen plant emergency generator engine	GE-3002	GE-3002	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Phosam unit emergency generator engine	GE-4601	GE-4601	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)

Emission Unit Description	EU	EP	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Boiler area emergency generator engine	GE-5101	GE-5101	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Portable air compressor engine	E12	E12	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Three portable water transfer pump engines	E4, E5 & E6	E4, E5 & E6	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Two portable hydroblaster engines	E7 & E8	E7 & E8	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Two portable hydroblaster engines	E9 & E10	E9 & E10	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Portable air compressor engine	E13	E13	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Portable air compressor engine	E14	E14	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Two emergency fire water pump engines	E15 & E16	E15 & E16	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)
Emergency fire water pump engine	E17	E17	Opacity	Recordkeeping	12.B.9	33-15-14-06.5.a(3)(a)

- 2) Ambient air monitoring requirements: An ambient air quality and meteorological monitoring program shall be operated and maintained in accordance with provisions specified by this Department and the May 10, 1979 Federal Register (40 CFR 58), as amended. The program shall be used to determine the ambient concentrations of designated pollutants in the vicinity of the plant site and to verify compliance with the North Dakota Ambient Air Quality Standards. The Department, at its discretion, may from time to time audit the performance of ambient air quality and meteorological monitoring equipment.

Applicable Requirement: NDAC 33-15-14-06.5.b(1)

B. Emission Monitoring Conditions

- 1) The monitoring shall be in accordance with the following applicable requirements of Chapter 33-15-06 and Chapter 33-15-12 of the North Dakota Air Pollution Control Rules.
 - a) Section 33-15-06-04 of the North Dakota Air Pollution Control Rules, Monitoring Requirements.
 - b) 40 CFR Part 60, Subpart A, Section 60.13, Monitoring Requirements.
 - c) 40 CFR Part 60, Subpart D, Section 60.45, Emission and Fuel Monitoring.
 - d) 40 CFR Part 60, Subpart Db, Section 60.48b Emission Monitoring for Particulate Matter and Nitrogen Oxides.

- 2) Quality assurance procedures for the gaseous monitoring systems shall be those required in Appendix F, 40 CFR, Part 60, except as follows:
 - a) For the CA-5101 (Bypass Stack) CEMS, the relative accuracy test audit (RATA) requirement of Appendix F will only be required when the bypass stack has operated more than 500 hours per calendar year. A record shall be kept of the hours of operation of the bypass stack.
 - b) For the FGD inlet duct and superheater (reheat duct) CEMS, the relative accuracy test audit (RATA) requirement of Appendix F will only be required once during the term of the permit.

- 3) The permittee shall monitor emissions in accordance with the Great Plains Synfuels Plant Continuous Emission Monitoring System (CEMS) Concept in Attachment C of this permit.

For superheaters BF-5002 (A & B), the permittee may calculate compliance rather than use a SO₂ CEMS by measuring fuel characteristics at least once per week. The analytical fuel analysis shall be performed for sulfur content and Btu. The fuel analysis combined with flow measurement of the fuel consumed will be used to calculate values for SO₂ lb/MMBtu as well as FGD removal efficiency.

- 4) The sulfur dioxide (SO₂) and nitrogen oxides (NO_x) monitor data acquisition system for the common main stack (EP CA-5701) must be capable of providing the data so that the cumulative tons of SO₂ and NO_x emissions (calendar year) may be calculated.
- 5) Within one year of permit issuance, the permittee shall conduct a performance evaluation of the opacity continuous emission monitoring system. For the performance evaluation, conformance with the specification for calibration error of 40 CFR 60, Appendix B, Performance Specification 1 must be demonstrated.

A second performance evaluation shall take place no sooner than two years or later than three years from the date of the first performance evaluation.

- 6) The Department may require additional performance audits of the CEMS.
- 7)
 - a) When a failure of a continuous emission monitoring system occurs, an alternative method acceptable to the Department for measuring or estimating emissions must be undertaken as soon as possible. Timely repair of the emission monitoring system must be made.
 - b) During periods of start-up, shutdown or malfunction of the continuous opacity monitor or the superheaters [EU BF-5002 (A & B)], the opacity of the main or bypass stack may be determined by taking two six-minute visible emission readings

per week day. One visible emission reading may be permissible to show compliance on weekends and holidays.

- 8) The NO_x lb/ 10^6 Btu and NO_x lb/hr emission rate for the 295×10^6 Btu/hr ammonia plant feed gas heater (EU BA-4403) shall be predicted using the Dakota Gasification Company, Predictive Emission Monitoring System, Ammonia Plant Feed Gas Heater in Attachment D of this permit.
- 9) For purposes of compliance monitoring, burning of fuels in compliance with Condition 3 and monitoring of feed gas flow for ammonia plant solution regeneration (EU FA-4427) shall be considered credible evidence of compliance with any applicable opacity and particulate emission limits. However, results from tests conducted in accordance with the test methods in 40 CFR Parts 50, 51, 60, 61, or 75 will take precedence over burning fuels in compliance with Condition 3 for evidence of compliance or noncompliance with any applicable opacity and particulate emission limit, in the event of enforcement action.
- 10) For the emission units listed below, to provide a reasonable assurance of compliance, the permittee shall conduct an emissions test to measure NO_x or CO emissions, using EPA Reference Methods in 40 CFR Part 60, Appendix A or at a minimum a portable analyzer method approved by the Department. A test shall consist of three runs, with each run at least 20 minutes in length.

<u>Emission Units</u>	<u>Pollutant</u>	<u>Frequency</u>
BA-1701 (Start-up Heater)	NO_x	When emission unit has operated more than 500 hours in a six-month period (January-June or July-December).
BA-4403 (Ammonia Plant Feed Gas Heater)	CO	Within one year of issuance of this permit.
FA-4427 (Ammonia Plant Solution Regeneration)	CO	Within one year of issuance of this permit.
BF-5601-X (Zurn Keystone Boilers #1 & #2)	NO_x	When emission unit has operated more than 500 hours in a six-month period (January-June or July-December).

In addition the manufacturer's recommended operations and maintenance (O&M) procedures or a site-specific O&M procedure developed from the manufacturer's recommended O&M procedures shall be followed to assure proper operation and maintenance of the emission unit. The permittee shall have the O&M procedures available on-site and provide the Department with a copy when requested.

- 11) The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure developed from the manufacturer's recommended O&M procedures, shall be followed to assure proper operation and maintenance of the equipment. The permittee shall have the O&M procedures available on-site and provide the Department with a copy when requested.
- 12) During each occurrence of flaring, the permittee shall calculate the SO₂ emission rate (lb/hr) based on a fuel analysis and amount of gas flared.

If the flaring lasts longer than 24 hours, the permittee shall observe the emission point. If no visible emissions are observed, the date and time shall be recorded.

If visible emissions are observed, the permittee must investigate the problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If the correction of the problem is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 15.G. Following corrective maintenance, a visible emissions observation shall be made.

All investigations or malfunctions and visible emissions shall be recorded. The permittee shall comply with the visible emissions and particulate emission limits and nothing in this condition shall be construed as authorizing otherwise.

- 13) Within one year of issuance of this permit, the permittee shall conduct an emissions test to measure particulate emissions using EPA Test Methods in 40 CFR Part 60, Appendix A. A test shall consist of three runs with each run at least one hour in length. Other test methods may be used provided they are approved in advance by the Department.
- 14) At least once per week in which the emission unit is operated, a company representative shall observe the emission point. If no visible emissions are observed, the date and time shall be recorded.

If visible emissions are observed, the permittee must investigate the problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If the correction of the problem is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 15.G. Following corrective maintenance, a visible emissions observation shall be made.

All investigations of malfunctions and visible emissions shall be recorded. The permittee shall comply with the visible emissions and particulate emission limits and nothing in this condition shall be construed as authorizing otherwise.

- 15) A log shall be kept of the hours of operation.
- 16) Monitoring shall be conducted in accordance with the Compliance Assurance Monitoring (CAM) Plan in Attachment A of this permit. The measured indicator range(s) for emission units subject to CAM are as follows:

Emission Unit Description	EU/EP	Control Equipment/ Pollutant Monitored	Indicator Range(s)
Three Riley boilers	BF-5101 / CA-5701 (common main stack)	Wet ESP / PM	20% Opacity (Frequency - Continuous)
Ash handling	GB-8201A&B / GB-8201 AX/BX	Ash sluice water reagent scrubber	<20 gallons/minute scrubber flow rate (Frequency: hourly)
Ammonium sulfate handling	GB-5807A / GB-5807A	Baghouse / PM	No visible emissions (Frequency: once per 24-hour period)
Fourteen gasifiers with coal lock vents	DA-1103 A-G & DA-1123 A-G / DA-1103 A-G & DA-1123 A-G	Ash sluice water reagent scrubber	<20 gallons/minute scrubber flow rate (Frequency: hourly)
Fines screening	CD-2501 & CD-2502 / CD-2501 & CD-2502	Baghouse / PM	No visible emissions (Frequency: once per 24-hour period)
Upper fines silo	CD-2701 / CD-2701	Baghouse / PM	No visible emissions (Frequency: once per 24-hour period)
Lower fines silo	CD-2702 / CD-2702	Baghouse / PM	No visible emissions (Frequency: once per 24-hour period)
Secondary coal sampling	CD-2601 / CD-2601	Baghouse / PM	No visible emissions (Frequency: once per 24-hour period)

13. Recordkeeping Requirements:

A. The permittee shall maintain compliance monitoring records for all emission units as outlined in the table below (Monitoring Records) that includes the following information.

- 1) The date, place (as defined in the permit) and time of sampling or measurement.
- 2) The date(s) testing was performed.
- 3) The company, entity, or person that performed the testing.
- 4) The testing techniques or methods used.
- 5) The results of such testing.
- 6) The operating conditions that existed at the time of sampling or measurement.

Applicable Requirement: NDAC 33-15-14-06.5.a.(3)(b)[1]

B. In addition to requirements outlined in Condition 13.A, recordkeeping for EU 1, EU B-5101 (A, B & C), EU BF-5002 (A & B), EU BA-4403, emission units subject to 40 CFR Part 60, Subpart Y and all emission units subject to NDAC 33-15-14-06.10 (40 CFR Part 64, Compliance Assurance Monitoring) shall be in accordance with the following applicable requirements of Chapter 33-15-06, Chapter 33-15-12 and Chapter 33-15-14 of the North Dakota Air Pollution Control Rules:

- 1) Section 33-15-06-05 of the North Dakota Air Pollution Control Rules, Reporting and Recordkeeping Requirements.
- 2) 40 CFR Part 60, Subpart A, Section 60.7, Notification and Recordkeeping.
- 3) 40 CFR Part 60, Subpart Db, Section 60.496, Reporting and Recordkeeping Requirements.
- 4) 40 CFR Part 64, Section 64.9 - Reporting and Recordkeeping Requirements, Paragraph (b) General Recordkeeping Requirements.

Monitoring Records

Emission Unit Description	EU	EP	Pollutant/ Parameter	Compliance Monitoring Record
Combined Riley boilers after FGD and superheaters discharge	1	CA-5701 (Common Main Stack)	PM	Emissions Test Data/CAM Data
			SO ₂	CEMS Data
			NO _x	CEMS Data
			Opacity	CEMS Data
Three Riley boilers	BF-5101 (A, B & S)	CA-5701 (Common Main Stack)	PM	CAM Data
			SO ₂	SO ₂ Calculation
Two heat transfer system superheaters	BF-5002 (A & B)	CA-5701 (Common Main Stack)	PM	Fuel Usage
			SO ₂	SO ₂ Calculation
Bypass stack	BF-5101 (A, B & S) & BF-5002 (A & B)	CA-5101 (Bypass Stack)	SO ₂	CEMS Data
			NO _x	CEMS Data
			Opacity	CEMS Data
Start-up heater	BA-1701	BA-1701	PM	Type of Fuel Usage
			NO _x	Emissions Test Data/O&M Data
			Opacity	Type of Fuel Usage
			Hours of Operation	Hours of Operation
Ammonia plant startup heater	BA-4402	BA-4402	Hours of Operation	Hours of Operation
Ammonia plant feed gas heater	BA-4403	BA-4403	PM	Type of Fuel Usage
			NO _x	Predictive Emission Monitoring Data
			CO	Emission Test Data/O&M Data
			Opacity	Type of Fuel Usage

Emission Unit Description	EU	EP	Pollutant/ Parameter	Compliance Monitoring Record
Ammonia plant solution regeneration	FA-4427	FA-4427	CO	Emissions Test Data/O&M Data
			Opacity	Feed Gas Flow
Ash handling	GB-8201 (A & B)	GB-8201 AX/BX (Common Stack)	PM	CAM Data
			Opacity	VE Observations
Ammonium sulfate handling	GB-5807A	GB-5807A	PM/Opacity	CAM Data
Two Zurn Keystone start-up boilers	BF-5601-X (#1 & #2)	CA-5601 (Common Stack)	PM	Type of Fuel Usage
			NO _x	Emissions Test Data/O&M Data
			Opacity	Type of Fuel Usage
			Hours of Operation	Hours of Operation
Fourteen gasifiers with coal lock vents	DA-1103 A-G & DA-1123 A-G	DA-1103 A-G & DA-1123 A-G	PM	CAM Data
			TRS	CAM Data
			Opacity	VE Observations
Start-up flare	CB-1182	CB-1182	SO ₂	Fuel Analysis & Amount of Gas Burned
			Opacity	VE Observations
Back-up flare	CB-1181	CB-1181	SO ₂	Fuel Analysis & Amount of Gas Burned
			Opacity	VE Observations
Main flare	CB-8301	CB-8301	SO ₂	Fuel Analysis & Amount of Gas Burned
			Opacity	VE Observations
Ammonia plant flare	CB-4401	CB-4401	Opacity	VE Observations
Ammonia storage tank flare	CB-6001	CB-6001	Opacity	VE Observations
Fines screenings	CD-2501 & CD-2502	CD-2501 & CD-2502 (Common Stack)	PM/Opacity	CAM Data
Upper fines silo	CD-2701	CD-2701	PM/Opacity	CAM Data

Emission Unit Description	EU	EP	Pollutant/ Parameter	Compliance Monitoring Record
Lower fines silo	CD-2702	CD-2702	PM/Opacity	CAM Data
Secondary coal sampling	CD-2601	CD-2601	PM/Opacity	CAM Data
Gasification unit emergency generator engine	GE-1101	GE-1101	Opacity	Type of Fuel Usage
Oxygen plant emergency generator engine	GE-3002	GE-3002	Opacity	Type of Fuel Usage
Phosam unit emergency generator engine	GE-4601	GE-4601	Opacity	Type of Fuel Usage
Boiler area emergency generator engine	GE-5101	GE-5101	Opacity	Type of Fuel Usage
Portable air compressor engine	E12	E12	Opacity	Type of Fuel Usage
Three portable water transfer pump engines	E4, E5 & E6	E4, E5 & E6	Opacity	Type of Fuel Usage
Two portable hydroblaster engines	E7 & E8	E7 & E8	Opacity	Type of Fuel Usage
Two portable hydroblaster engines	E9 & E10	E9 & E10	Opacity	Type of Fuel Usage
Portable air compressor engine	E13	E13	Opacity	Type of Fuel Usage
Portable air compressor engine	E14	E14	Opacity	Type of Fuel Usage
Two emergency fire water pump engines	E15 & E16	E15 & E16	Opacity	Type of Fuel Usage
Emergency fire water pump engine	E17	E17	Opacity	Type of Fuel Usage

- C. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least five years from the date of the compliance monitoring sampling, measurement, report, or application. Support information includes all maintenance records of the engines and all original strip-chart recordings/computer printouts and calibrations of the continuous compliance monitoring instrumentation, and copies of all reports required by the permit.

Applicable Requirement: NDAC 33-15-14-06-5.a(3)(b)[2]

14. **Reporting:**

- A. For EU 1, EU BF-5101 (A, B & S), EU BF-5002 (A & B), EU BA-4403, emission units subject to 40 CFR Part 60, Subpart Y and emission units subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM), reporting shall be in accordance with the following applicable requirements of Chapter 33-15-06, Chapter 33-15-12 and Chapter 33-15-14 of the North Dakota Air Pollution Control Rules.

- 1) Section 33-15-06-05 of the North Dakota Air Pollution Control Rules, Reporting and Recordkeeping Requirements.
- 2) 40 CFR Part 60, Subpart A, Section 60.7, Notification and Recordkeeping.
- 3) 40 CFR Part 60, Subpart Db, Section 60.496, Reporting and Recordkeeping Requirements.
- 4) 40 CFR Part 64, Section 64.9, Reporting and Recordkeeping Requirements, Paragraph (a) General Reporting Requirements.
- 5) Quarterly excess emissions reports shall be submitted by the 30th day following the end of each calendar quarter. Excess emissions are defined as emissions which exceed the emission limits as outlined in Condition 5. Excess emissions shall be reported for the following:

EU/EP	Parameter	Reporting Period
EP CA-5701 (Common Main Stack) and EP CA-5101 (Bypass Stack)	SO ₂ (lb/hr) NO _x (lb/hr) Opacity (%)	1-hour average 30-day rolling average 6-minute average
EU BF-5101 (A, B & S) Riley Boilers	SO ₂ (lb/10 ⁶ Btu)	3-hour rolling average*
EU BF-5002 (A & B) Superheaters	SO ₂ (lb/10 ⁶ Btu)	1-hour average
EU BA-4403 Ammonia Plant Feed Gas Heater	NO _x lb/hr NO _x (lb/10 ⁶ Btu)	30-day rolling average 30-day rolling average
Ammonium Sulfate FGD System efficiency (%)	SO ₂ removal	24-hour block

* For the purpose of determining compliance with three-hour rolling total averages in the permit, missing data may be substituted with an average of the last valid hour and the most recent data hour so long as the missing data does not last more than eight hours.

- B. For emission units where the method of compliance is demonstrated by an EPA Test Method or a portable analyzer test, the test report shall be submitted to the Department within 60 days after completion of the test.

Applicable Requirement: NDAC 33-15-14-06.5.a.(6)(e)

- C. The permittee shall submit a semi-annual monitoring report for all monitoring records required under Condition 12 on forms supplied or approved by the Department. All instances of deviations from the permit must be identified in the report. A monitoring report shall be submitted within 45 days after June 30 and December 31 of each year.

Applicable Requirements: NDAC 33-15-14-06.5.a.(3)(c)[1] and [2]

- D. The permittee shall submit an annual compliance certification report within 45 days after December 31 of each year on forms supplied or approved by the Department.

Applicable Requirement: NDAC 33-15-14-06.5.c.(5)

- E. The permittee shall submit an annual emissions inventory report on forms supplied or approved by the Department. This report shall be submitted by April 15 of each calendar year. Insignificant units/activities listed in the permit do not need to be included in the report.

Applicable Requirements: NDAC 33-15-14-06.5.a.(7) and NDAC 33-15-23-04

- F. The ambient air quality monitoring data and quality assurance reports must be submitted to the Department within 45 days of the end of the calendar quarter and must contain the following information either in the body of the report or the cover letter:

- 1) A list of the highest and second-highest concentrations for each parameter and a list of all values exceeding State and Federal ambient air quality standards. The lists should contain the date, time, wind speed and wind direction for each of the above entries for each site.
- 2) An explanation for each exceedance of the ambient air quality standard. If there are no exceedances, a statement should be made to that effect.
- 3) A brief discussion of instrument malfunctions or significant problems that occurred during the quarter, and a summary of the corrective actions taken (to include locations and times).
- 4) A summary of the calibrations and zero/span checks conducted for each parameter at each site. For the calibrations, include the slopes, intercepts, and correlation coefficients of the least-squares linear regressions.
- 5) A computation of data recovery for each parameter at each site on a monthly basis for the quarter expressed in percentages (actual versus possible). Each parameter at each site is expected to maintain a minimum monthly data recovery rate of 80%. The reasons for failing to meet this requirement must be clearly explained.
- 6) A list of precision checks conducted during the quarter including dates, known concentrations, measured concentrations, individual percentage differences, quarterly average percentage differences, standard deviation and 95% probability limits (Reference: 40 CFR 58).
- 7) A report of the performance audits conducted during the quarter including known and measured concentrations and individual percentage differences. Also include slope, intercept, and the correlation coefficient of the audit line and the percent difference (full scale).

The quarterly data can be submitted by electronics or email format and must be in the format specified in Section 3 of the Department's Site Identification and Air Quality Data Reporting Formats Manual.

Applicable Requirement: PTC Cond.

G. When an ambient air quality standard is exceeded, the following actions must be taken:

- 1) The Department must be notified by telephone as soon as a potential ambient air quality standard violation is identified and the value(s) are validated.
- 2) Written notification must be sent to the Department within 60 days of the date of the potential ambient air quality standard violation. The written notification must include, at a minimum, meteorological conditions prior to and during the period(s) in violation, the possible source(s) contributing to and/or causing the violation(s), and if applicable, the operating conditions of the source(s) prior to and during the violation period(s).

Applicable Requirement: 33-15-14-06.5.a.(3)(a)

15. **Facility Wide Operating Conditions:**

A. **Ambient Air Quality Standards:**

- 1) Particulate and gases. The permittee shall not emit air contaminants in such a manner or amount that would violate the standards of ambient air quality listed in Table 1 of NDAC 33-15-02 at any place beyond the premises on which the source is located.
- 2) Radioactive substances. The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33-10.
- 3) Other air contaminants. The permittee shall not emit any other air contaminants in concentrations that would be injurious to human health or well-being or unreasonably interfere with the enjoyment of property or that would injure plant or animal life.
- 4) Disclaimer. Nothing in any other part or section of this permit may in any manner be construed as authorizing or legalizing the emission of air contaminants in such manner that would violate the standards in Paragraphs 1), 2) and 3) of this condition.

Applicable Requirement: NDAC 33-15-02-04

B. **Fugitive Emissions:** The release of fugitive emissions shall comply with the applicable requirements in NDAC 33-15-17.

Applicable Requirement: NDAC 33-15-17

- C. **Open Burning:** The permittee may not cause, conduct, or permit open burning of refuse, trade waste, or other combustible material, except as provided for in section 33-15-04-02 and may not conduct, cause, or permit the conduct of a salvage operation by open burning. Any permissible open burning under NDAC 33-15-04-02 must comply with the requirements of that section.

Applicable Requirement: NDAC 33-15-04

- D. **Asbestos Renovation or Demolition:** Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33-15-13.

Applicable Requirement: NDAC 33-15-13-02

- E. **Requirements for Organic Compounds Gas Disposal:**

- 1) The owner/operator shall incinerate, flare or treat in an equally effective manner any organic compounds, gases and vapors which are generated as wastes as the result of storage, refining, or process operations and which contain hydrogen sulfide before being released to the ambient air.
- 2) Each flare must be equipped and operated with an automatic ignitor or a continuous burning pilot.

Applicable Requirement: NDAC 33-15-07-02

- F. **Rotating Pumps and Compressors:** All rotating pumps and compressors handling volatile organic compounds must be equipped and operated with properly maintained seals designed for their specific product service and operating conditions.

Applicable Requirement: NDAC 33-15-07-01.5

- G. **Shutdowns/Malfunction/Continuous Emission Monitoring System Failure:**

- 1) **Maintenance Shutdowns.** In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Department at least twenty-four hours prior to the planned shutdown provided that the air contaminating source will be operated while the control equipment is not in service. Such prior notice shall include the following:
 - a) Identification of the specific facility to be taken out of service as well as its location and permit number.
 - b) The expected length of time that the air pollution control equipment will be out of service.

- c) The nature and estimated quantity of emissions of air pollutants likely to be emitted during the shutdown period.
- d) Measures, such as the use of off-shift labor and equipment, that will be taken to minimize the length of the shutdown period.
- e) The reasons that it would be impossible or impractical to shutdown the source operation during the maintenance period.
- f) Nothing in this subsection shall in any manner be construed as authorizing or legalizing the emission of air contaminants in excess of the rate allowed by this article or a permit issued pursuant to this article.

Applicable Requirements: NDAC 33-15-01-13.1

2) Malfunctions.

- a) When a malfunction in any installation occurs that can be expected to last longer than twenty-four hours and cause the emission of air contaminants in violation of this article or other applicable rules and regulations, the person responsible for such installation shall notify the Department of such malfunction as soon as possible during normal working hours. The notification must contain a statement giving all pertinent facts, including the estimated duration of the breakdown. The department shall be notified when the condition causing the malfunction has been corrected.
- b) Immediate notification to the department is required for any malfunction that would threaten health or welfare, or pose an imminent danger. During normal working hours the Department can be contacted at 701-328-5188. After hours the department can be contacted through the twenty-four-hour state radio emergency number 1-800-472-2121. If calling from out of state, the twenty-four-hour number is 701-328-9921.
- c) Unavoidable malfunction. The owner or operator of a source who believes any excess emissions resulted from an unavoidable malfunction shall submit a written report to the Department which includes evidence that:
 - [1] The excess emissions were caused by a sudden, unavoidable breakdown of technology that was beyond the reasonable control of the owner or operator.
 - [2] The excess emissions could not have been avoided by better operation and maintenance, did not stem from an activity or event that could have been foreseen and avoided, or planned for.
 - [3] To the extent practicable, the source maintained and operated the air pollution control equipment and process equipment in a manner consistent

with good practice for minimizing emissions, including minimizing any bypass emissions.

- [4] Any necessary repairs were made as quickly as practicable, using off-shift labor and overtime as needed and possible.
- [5] All practicable steps were taken to minimize the potential impact of the excess emissions on ambient air quality.
- [6] The excess emissions are not part of a recurring pattern that may have been caused by inadequate operation or maintenance, or inadequate design of the malfunctioning equipment.

The report shall be submitted within thirty days of the end of the calendar quarter in which the malfunction occurred or within thirty days of a written request by the department, whichever is sooner.

The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred. The Department may elect not to pursue enforcement action after considering whether excess emissions resulted from an unavoidable equipment malfunction. The Department will evaluate, on a case-by-case basis, the information submitted by the owner or operator to determine whether to pursue enforcement action.

Applicable Requirement: NDAC 33-15-01-13.2

- 3. Continuous Emission Monitoring System Failures. When a failure of a continuous emission monitoring system occurs, an alternative method for measuring or estimating emissions must be undertaken as soon as possible. The owner or operator of a source that uses an alternative method shall have the burden of demonstrating that the method is accurate. Timely repair of the emission monitoring system must be made.

Applicable Requirements: NDAC 33-15-01-13.3

H. **Noncompliance Due to an Emergency:** The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

- 1) An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- 2) The permitted facility was at the time being properly operated;

- 3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- 4) The permittee submitted notice of the emergency to the Department within one working day of the time when emission limitations were exceeded longer than 24-hours due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. Those emergencies not reported within one working day, as well as those that were, will be included in the semi-annual report.
- 5) In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - a) Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a New Source Performance Standard) rather than those established to attain a health based air quality standard.
 - b) An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Applicable Requirement: NDAC 33-15-14-06.5.g

- I. **Vehicles and Internal Combustion Engines:** No person shall operate, or cause to be operated, any internal combustion engine which emits from any source any unreasonable and excessive smoke, obnoxious or noxious gases, fumes or vapor.

Applicable Requirement: NDAC 33-15-08-01

- J. **Prohibition of Air Pollution:**

- 1) The permittee shall not permit or cause air pollution, as defined in NDAC 33-15-01-04.
- 2) Nothing in any other part of this permit or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of air pollution.

Applicable Requirement: NDAC 33-15-01-15

K. Performance Tests:

- 1) The Department may reasonably require the permittee to make or have made tests, at a reasonable time or interval, to determine the emission of air contaminants from any source, for the purpose of determining whether the permittee is in violation of any standard or to satisfy other requirements of NDCC 23-25. All tests shall be made and the results calculated in accordance with test procedures approved or specified by the Department including the North Dakota Department of Health Emission Testing Guideline. All tests shall be conducted by reputable, qualified personnel. The Department shall be given a copy of the test results in writing and signed by the person responsible for the tests.
- 2) The Department may conduct tests of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants.

Applicable Requirement: NDAC 33-15-01-12

- 3) Except for sources subject to 40 CFR Part 63, the permittee shall notify the Department by submitting a Proposed Test Plan, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. The permittee shall notify the Department at least 60 calendar days in advance of any performance testing required under 40 CFR Part 63. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department as soon as practicable when conditions warrant, and shall coordinate a new test date with the Department.

Failure to give the proper notification may prevent the Department from observing the test. If the Department is unable to observe the test because of improper notification, the test results may be rejected.

Applicable Requirements: NDAC 33-15-14-06.5.a(3)(a), NDAC 33-15-12-02 Subpart A (40 CFR 60.8), NDAC 33-15-13-01.2 Subpart A (40 CFR 61.13), NDAC 33-15-22-03 Subpart A (40 CFR 63.7), 40 CFR 60.8, 40 CFR 61.13, 40 CFR 63.7

- L. Pesticide Use and Disposal:** Any use of a pesticide or disposal of surplus pesticides and empty pesticide containers shall comply with the requirements in NDAC 33-15-10.

Applicable Requirements: NDAC 33-15-10-01 and NDAC 33-15-10-02

- M. Air Pollution Emergency Episodes:** When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33-15-11.

Applicable Requirements: NDAC 33-15-11-01 through NDAC 33-15-11-04

N. **Stratospheric Ozone Protection:** The permittee shall comply with any applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

- 1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.
- 2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.
- 3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.
- 4) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to Section 82.156.

Applicable Requirement: 40 CFR Part 82

O. **Chemical Accident Prevention:** The permittee shall comply with all applicable requirements of Chemical Accident Prevention pursuant to 40 CFR Part 68. The permittee shall comply with the requirements of this part no later than the latest of the following dates:

- 1) Three years after the date on which a regulated substance is first listed under this part; or
- 2) The date on which a regulated substance is first present above a threshold quantity in a process.

Applicable Requirement: 40 CFR Part 68

P. **Air Pollution Control Equipment:** The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure developed from the manufacturer's recommended O&M procedures, shall be followed to assure proper operation and maintenance of the equipment. The permittee shall have the O&M procedures available onsite and provide the Department with a copy when requested.

Applicable Requirement: NDAC 33-15-14-06.5.b(1)

Q. **Prevention of Significant Deterioration of Air Quality (40 CFR 52.21 as incorporated by NDAC Chapter 33-15-15):** If this facility is classified as a major stationary source under the Prevention of Significant Deterioration of Air Quality (PSD) rules, a Permit to Construct must be obtained from the Department for any project which meets the definition of a "major modification" under 40 CFR 52.21(b)(2).

If this facility is classified as a major stationary source under the PSD rules and the permittee elects to use the method specified in 40 CFR 52.21(b)(41)(ii)(a) through (c) for calculating the projected actual emissions of a proposed project, then the permittee shall comply with all applicable requirements of 40 CFR 52.21(r)(6).

Applicable Requirement: NDAC 33-15-15-01.2

16. **General Conditions:**

- A. **Annual Fee Payment:** The permittee shall pay an annual fee, for administering and monitoring compliance, which is determined by the actual annual emissions of regulated contaminants from the previous calendar year. The Department will send a notice, identifying the amount of the annual permit fee, to the permittee of each affected installation. The fee is due within sixty days following the date of such notice. Any source that qualifies as a "small business" may petition the Department to reduce or exempt any fee required under this section. Failure to pay the fee in a timely manner or submit a certification for exemption may cause this Department to initiate action to revoke the permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(7) and NDAC 33-15-23-04

- B. **Permit Renewal and Expiration:** This permit shall be effective from the date of its issuance for a fixed period of 5 years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least six months, but no more than eighteen months, prior to the date of permit expiration. The Department shall approve or disapprove the renewal application within sixty days of receipt. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness, the application shall be deemed complete. For timely and complete renewal applications for which the Department has failed to issue or deny the renewal permit before the expiration date of the previous permit, all terms and conditions of the permit, including any permit shield previously granted shall remain in effect until the renewal permit has been issued or denied. The application for renewal shall include the current permit number, description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

Applicable Requirements: NDAC 33-15-14-06.4 and NDAC 33-15-14-06.6

- C. **Transfer of Ownership or Operation:** This permit may not be transferred except by procedures allowed in Chapter 33-15-14 and is to be returned to the Department upon the destruction or change of ownership of the source unit(s), or upon expiration, suspension or revocation of this permit. A change in ownership or operational control of a source is treated as an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Applicable Requirement: NDAC 33-15-14-06.6.d

- D. **Property Rights:** This permit does not convey any property rights of any sort, or any exclusive privilege.

Applicable Requirement: NDAC 33-15-14-06.5.a(6)(d)

- E. **Submissions:**

- 1) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to:

North Dakota Department of Health
Division of Air Quality
918 E Divide Avenue, 2nd Floor
Bismarck, ND 58501-1947

- 2) Any document submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33-15-14-06.4.d

- F. **Right of Entry:** Any duly authorized officer, employee or agent of the North Dakota Department of Health may enter and inspect any property, premise or place listed on this permit or where records are kept concerning this permit at any reasonable time for the purpose of ascertaining the state of compliance with this permit and the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source. The Department shall have the right to access and copy any records required by the Department's rules and to inspect monitoring equipment located on the premises.

Applicable Requirements: NDAC 33-15-14-06.5.c(2) and NDAC 33-15-01-06

- G. **Compliance:** The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Federal Clean Air Act. Any noncompliance with any State enforceable condition of this permit constitutes a violation of NDCC Chapter 23-25 and NDAC 33-15. Violation of any condition of this permit is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Noncompliance may also be grounds for assessment of penalties under the NDCC 23-25. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(6)(a) and NDAC 33-15-14-06.5.a(6)(b)

- H. **Duty to Provide Information:** The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the

permittee may furnish such recourse directly to the Department along with a claim of confidentiality. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

Applicable Requirements: NDAC 33-15-14-06.5.a(6)(e) and NDAC 33-15-14-06.4.b

I. Reopening for Cause: The Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

- 1) Additional applicable requirements under the Federal Clean Air Act become applicable to the permittee with a remaining permit term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
- 2) The Department or the United States Environmental Protection Agency determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

Applicable Requirement: NDAC 33-15-14-06.6.f(1)(c)

- 3) The Department or the United States Environmental Protection Agency determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- 4) Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Department at least 30 days in advance of the date that this permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency. Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

Applicable Requirement: NDAC 33-15-14-06.6.f

J. Permit Changes: The permit may be modified, revoked, reopened, and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Applicable Requirement: NDAC 33-15-14-06.5.a(6)(c)

K. Off-Permit Changes: A permit revision is not required for changes that are not addressed or prohibited by this permit, provided the following conditions are met:

- 1) No such change may violate any term or condition of this permit.

- 2) Each change must comply with all applicable requirements.
- 3) Changes under this provision may not include changes or activities subject to any requirement under Title IV or that are modifications under any provision of Title I of the Federal Clean Air Act.
- 4) A Permit to Construct under NDAC 33-15-14-02 has been issued, if required.
- 5) Before the permit change is made, the permittee must provide written notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, except for changes that qualify as insignificant activities in Section 33-15-14-06. This notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result.
- 6) The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permittee's facility.

Applicable Requirement: NDAC 33-15-14-06.6.b(3)

L. **Administrative Permit Amendments:** This permit may be revised through an administrative permit amendment, if the revision to this permit accomplishes one of the following:

- 1) Corrects typographical errors.
- 2) Identifies a change in the name, address or phone number of any person identified in this permit, or provides a similar minor administrative change at the source.
- 3) Requires more frequent monitoring or reporting by the permittee.
- 4) Allows for a change in ownership or operational control of the source where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the Department.
- 5) Incorporates into the Title V permit the requirements from a Permit to Construct when the review was substantially equivalent to Title V requirements for permit issuance, renewal, reopenings, revisions and permit review by the United States Environmental Protection Agency and affected state review, that would be applicable to the change if it were subject to review as a permit modification and compliance requirements substantially equivalent to Title V requirements for permit content were contained in the Permit to Construct.
- 6) Incorporates any other type of change which the Administrator of the United States Environmental Protection Agency has approved as being an administrative permit amendment as part of the Department's approved Title V operating permit program.

Applicable Requirement: NDAC 33-15-14-06.6.d

M. **Minor Permit Modification:** This permit may be revised by a minor permit modification, if the proposed permit modification meets the following requirements:

- 1) Does not violate any applicable requirement.
- 2) Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in this permit.
- 3) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.
- 4) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Federal Clean Air Act; and alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Federal Clean Air Act.
- 5) Are not modifications under NDAC 33-15-12, 33-15-13, and 33-15-15 or any provision of Title I of the Federal Clean Air Act.
- 6) Are not required to be processed as a significant modification.

Applicable Requirement: NDAC 33-15-14-06.6.e(1)

N. **Significant Modifications:**

- 1) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing therein shall be construed to preclude the permittee from making changes consistent with this subsection that would render existing permit compliance terms and conditions irrelevant.
- 2) Significant permit modifications shall meet all Title V requirements, including those for applications, public participation, review by affected states, and review by the United States Environmental Protection Agency, as they apply to permit issuance and permit renewal. The Department shall complete review of significant permit modifications within nine months after receipt of a complete application.

Applicable Requirement: NDAC 33-15-14-06.6.e(3)

O. **Operational Flexibility:** The permittee is allowed to make a limited class of changes within the permitted facility that contravene the specific terms of this permit without applying for a permit

revision, provided the changes do not exceed the emissions allowable under this permit, are not Title I modifications and a Permit to Construct is not required. This class of changes does not include changes that would violate applicable requirements; or changes to federally-enforceable permit terms or conditions that are monitoring, recordkeeping, reporting, or compliance certification requirements.

The permittee is required to send a notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, at least seven days in advance of any change made under this provision. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. Any permit shield provided in this permit does not apply to changes made under this provision.

Applicable Requirement: NDAC 33-15-14-06.6.b(2)

P. **Relationship to Other Requirements:** Nothing in this permit shall alter or affect the following:

- 1) The provisions of Section 303 of the Federal Clean Air Act (emergency orders), including the authority of the administrator of the United States Environmental Protection Agency under that section.
- 2) The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.
- 3) The ability of the United States Environmental Protection Agency to obtain information from a source pursuant to Section 114 of the Federal Clean Air Act.
- 4) Nothing in this permit shall relieve the permittee of the requirement to obtain a Permit to Construct.

Applicable Requirements: NDAC 33-15-14-06.3 and NDAC 33-15-14-06.5.f(3)(a), (b) and (d)

Q. **Severability Clause:** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Applicable Requirement: NDAC 33-15-14-06.5.a(5)

R. **Circumvention:** The permittee shall not cause or permit the installation or use of any device of any means which conceals or dilutes an emission of air contaminants which would otherwise violate this permit.

Applicable Requirement: NDAC 33-15-01-08

17. **State Enforceable Only Conditions (not Federally enforceable):**

- A. **General Odor Restriction:** The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which exceeds the limits established in NDAC 33-15-16.

Applicable Requirement: NDAC 33-15-16

- B. **Hydrogen Sulfide Restriction:** The permit shall not discharge into the ambient air hydrogen sulfide (H₂S) in concentrations that would be objectionable on land owned or leased by the complainant or in areas normally accessed by the general public. For the purpose of complaint resolution under this section, two samples with concentrations greater than 0.05 parts per million (50 parts per billion) sampled at least 15 minutes apart within a two-hour period constitutes a violation. An ambient air analyzer designed for monitoring hydrogen sulfide (H₂S) is the method used for determining the concentrations of emissions at the point of measurement, or other instrumental methods as approved by the Department.

Applicable Requirements: NDAC 33-15-16-02.1 and NDAC 33-15-16-04

18. **Plantwide Applicability Limitations (PALs):**

A. **Sulfur Dioxides and Nitrogen Oxides:**

- 1) The permittee shall emit less than 5,840 tons of sulfur dioxide (SO₂), and 3,567 tons of nitrogen oxides (NO_x) from the entire facility in any consecutive twelve-month period. Emissions during periods of start-up, shutdowns, and malfunctions of the control devices shall be counted towards the limit during the twelve-month period.
- 2) The permittee shall track emissions and calculate the monthly and consecutive twelve-month emissions for SO₂ and NO_x from the entire facility in accordance with Attachment A to PTC10027 (found at Attachment E to this permit).
- 3) The permittee shall report the monthly twelve-month rolling totals to the North Dakota Department of Health no later than forty-five days after the end of each quarter.
- 4) The permittee shall keep documentation of any AP-42 emission factors, plant records, stack testing results, and mass balance or engineering calculations used to demonstrate compliance with Condition 18.A for a minimum of five years.
- 5) The permittee shall keep documentation of quality assurance/quality control data related to the plant records that are used to demonstrate compliance for a minimum of five years.
- 6) The permittee shall maintain a Department-approved monitoring plan for the plantwide applicability limitations described in Condition 18.A of this permit. The monitoring and record keeping plan for each of the PALs is included in Attachment E, Plantwide Applicability Limit Conditions.
- 7) The PALs shall be effective for a period of ten years beginning on the issuance date of PTC10027 (i.e., 11/1/11 to 12/31/20).

Applicable Requirements: PTC10027 and NDAC 33-15-15-01.2

B. Greenhouse Gases:

- 1) The permittee shall emit no more than 5,461,854 tons CO₂e of greenhouse gases (GHGs) from the entire facility in any consecutive twelve-month period. GHGs are as defined by 40 CFR 52.21(b)(59). CO₂e (carbon dioxide equivalent) is as defined by 40 CFR 52.21(b)(60). Emissions during periods of start-up, shutdowns, and malfunctions shall be counted towards the limits during the twelve-month period.
- 2) The permittee shall track emissions and calculate the monthly and consecutive twelve-month emissions of GHGs from the entire facility in accordance with Attachment A to PTC11048 (found at Attachment E to this permit).
- 3) The permittee shall report the monthly twelve-month rolling GHG emission totals to the Department on a semi-annual basis in accordance with 40 CFR 52.21(aa)(14)(i)(b).
- 4) The permittee shall keep documentation of any CEMS data, AP-42 emission factors, plant records, stack testing results, and mass balance or engineering calculations used to demonstrate compliance with Condition II.A.1 of this permit for a minimum of five years.
- 5) The permittee shall keep documentation of quality assurance / quality control data related to the plant records that are used to demonstrate compliance for a minimum of five years.
- 6) The permittee shall calculate GHG emissions from the entire facility to demonstrate compliance with the PAL described in Condition II.A.1 of this permit using the calculation procedures shown in Attachment A of this permit.
- 7) The PAL shall be effective for a period of ten years beginning on the first day of the month following issuance of PTC11048 (i.e.: 8/1/11 to 7/31/21).

Applicable Requirements: PTC11048 and NDAC 33-15-15-01.2

19. **PAL Renewal Application:** The permittee shall submit a timely application to the Department to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of the PAL expiration. If a timely application is submitted, then the PAL shall continue to be effective until a revised permit with a renewed PAL is issued. Failure to submit a timely and complete renewal application for any PAL will result in the termination of the PAL on the PAL expiration date.

A complete PAL renewal application will consist of the following:

- A. A proposed PAL level.
- B. A list of all emission units with applicable Federal or State requirements. These requirements

include emission limits but also any requirement to report emissions in an emission inventory report.

- C. Calculation of the baseline actual emissions (with supporting documentation).
- D. The calculation procedures that the permittee proposes to use to convert the monitoring system data to monthly emissions and annual emissions.
- E. The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).
- F. Any decrease in potential emissions due to the removal of permitted emission units.
- G. Reasons for the suggested renewed PAL levels.
- H. Any other information the permittee wishes the Department to consider in determining the appropriate level for renewing the PAL.

Applicable Requirements: PTC10027 and NDAC 33-15-15-1.2

20. **PAL Recordkeeping Requirements:** The permittee shall comply with all applicable requirements of 40 CFR 52.21(aa)(13). The permittee shall retain a copy of the following:

- A. A determination of each emissions unit's 12-month rolling total emissions for a period of 5 years from the date of such record.
- B. A copy of the PAL permit application and any applications for revisions to the PAL for the duration of the PAL effective period plus 5 years.
- C. All records necessary to determine compliance with any requirement of 40 CFR 52.21(aa) for 5 years from the date of such record.

Applicable Requirements: PTC10027 and NDAC 33-15-15-1.2

21. **PAL Reporting and Notification Requirements:** The permittee shall submit semi-annual monitoring reports and prompt deviation reports to the Department in accordance with the applicable Title V Permit to Operate for the facility. The reports shall meet the requirements in 40 CFR 52.21(aa)(14)(i) through (iii).

Applicable Requirements: PTC10027 and NDAC 33-15-15-1.2

22. **Increasing a PAL During the PAL Effective Period:** To increase a PAL during the effective period, the permittee must comply with the provisions of 40 CFR 52.21(aa)(11)(i)(a) through (d).

Applicable Requirements: PTC10027 and NDAC 33-15-15-1.2

23. **PAL Requirements:** The permittee shall comply with all applicable requirements of 40 CFR 52.21(aa) and nothing in this permit shall authorize otherwise.

Applicable Requirements: PTC10027 and NDAC 33-15-15-1.2